



UNITED STATES PATENT AND TRADEMARK OFFICE

6
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,867	10/26/2001	Aleksei V. Gershun	PRE/5	5612
1473	7590	01/12/2004	EXAMINER	
FISH & NEAVE 1251 AVENUE OF THE AMERICAS 50TH FLOOR NEW YORK, NY 10020-1105			WEBB, GREGORY E	
			ART UNIT	PAPER NUMBER
			1751	

DATE MAILED: 01/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/046,867	GERSHUN ET AL.	
	Examiner	Art Unit	
	Gregory E. Webb	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 02 August 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-38 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-38 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>10222003</u> .	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Response to Amendment

1. The following is in response to the applicant's amendments filed 10/22/03.
2. The examiner has noted the applicant's inclusion of the alcohol limitation. It should be noted that this limitation was not presented in any of the previous sets of claims examined.
3. The applicant applies the same argument to each of the references presented by the applicant. This argument being that the prior art references fail to teach or suggest the use of no more than about 1% by weight of alcohols.
4. The applicant supports the argument by citing very specific examples from the prior art which do not meet this limitation. With respect to the Smith reference, the examiner agrees with this argument as Smith does not teach or suggest the use of low amounts of alcohols. In fact Smith teaches away from the use of these low amounts. As such, the examiner withdraws the previous rejections based on the Smith reference.
5. The remainder of the cited references provide a very clear general teaching of compositions containing no more than about 1% alcohol. For example, Cable provides a general teaching as follows (see col. 3; emphasis added):

(24) The solvents useful in this invention are organic solvents with a vapor pressure of at least 0.001 mm Hg at 25.degree. C. and soluble to the extent of at least 1 g/100 ml water. The upper limit of vapor pressure appears to be about 100 mm Hg at 25.degree. C. Vapor pressure is a useful measure for determining the applicability of the given solvent, since one would select a solvent which will volatilize sufficiently so as to leave no visible residue. The organic solvent of the invention is preferably selected from C.sub.1-6 alkanol, C.sub.3-24 alkylene glycol ether, and mixtures thereof. However, other, less water soluble or dispersible organic solvents may also be utilized. It is preferred that a mixture of the C.sub.1-6 alkanol and C.sub.3-24 alkylene glycol ether solvents be used. The alkanol can be selected from methanol, ethanol, n-propanol, isopropanol, butanol, pentanol, hexanol, their various positional isomers, and mixtures of the foregoing. In the invention, it has been found most preferable to use isopropanol, usually in conjunction with a glycol ether. It may also be possible to utilize in addition to, or in place

Art Unit: 1751

of, said alkanols, the diols such as methylene, ethylene, propylene and butylene glycols, and mixtures thereof. Other solvents, such as ketones, ethers, hydrocarbons and halides may be used. Other examples of solvents can be found in Kirk-Othmer, Encyclopedia of Chemical Technology 3rd, Vol. 21, pp. 377-401 (1983), incorporated by reference herein.

(25) The alkylene glycol ether solvents can include ethylene glycol monobutyl ether, ethylene glycol monopropyl ether, propylene glycol monopropyl ether, propylene glycol monobutyl ether, and mixtures thereof. One particularly preferred glycol ether is ethylene glycol, monobutyl ether, also known as 2-butoxyethanol, sold as Dowanol EB from Dow Chemical, while another commercially available one is Butyl Cellosolve by Union Carbide. The use of these particular glycol ethers in the invention results in a very low to minimal foaming cleaner, both upon application (spraying) and removal from (wiping) a hard surface. Another preferred alkylene glycol ether is propylene glycol, t-butyl ether, which is commercially sold as Arcosolve PTB, by Arco Chemical Co. If mixtures of solvents are used, the amounts and ratios of such solvents used are important to determine the optimum cleaning and streak/film performances of the inventive cleaner. It is preferred to limit the total amount of solvent to no more than 50%, more preferably no more than 25%, and most preferably, no more than 15%, of the cleaner. However, in some of the compositions of this invention, no solvent may be present. A preferred range is about 1-15%, and if a mixed solvent system of alkanol/glycol ether is used, the ratio of alkanol to alkylene glycol ether should be about 1:20 to 20:1, more preferably about 1:10 to 10:1 and most preferably about 1:5 to 5:1.

6. It is clear from the above general teaching that Cable clearly anticipates the use of 1% alcohols as per the instant claim limitations.

7. Concerning Choy, Choy also provides a general teaching of the applicants claim limitation in the following statement (see col. 4; emphasis added):

(33) The solvents useful in this invention are organic solvents with a vapor pressure of at least 0.001 mm Hg at 25.degree. C. and soluble to the extent of at least 1 g/100 ml water. The upper limit of vapor pressure appears to be about 100 mm Hg at 25.degree. C. Vapor pressure is a useful measure for determining the applicability of the given solvent, since one would select a solvent which will volatilize sufficiently so as to leave no visible residue. The organic solvent of the invention is preferably selected from C.sub.1-6 alkanol, C.sub.3-24 alkylene glycol ether, and mixtures thereof. However, other, less water soluble or dispersible organic solvents may also be utilized. It is preferred that a mixture of the C.sub.1-6 alkanol and C.sub.3-24 alkylene glycol ether solvents be used. The alkanol can be selected from methanol, ethanol, n-propanol, isopropanol, butanol, pentanol, hexanol, their various positional isomers, and mixtures of the foregoing. In the invention, it has been found most preferable to use isopropanol, usually in conjunction with a glycol ether. It may also be possible to utilize in addition to, or in place of, said alkanols, the diols such as methylene, ethylene, propylene and butylene glycols, and mixtures thereof. Other solvents, such as amines,

Art Unit: 1751

ketones, ethers, hydrocarbons and halides may be used. In the case of certain amines, e.g., monoethanolamine, diethanolamine, etc., such solvents are also considered buffers (as described further below in 4). Thus, it is possible that, in certain instances, these amines can be bifunctional herein, although it is cautioned that, strictly from the point of aesthetics, amines have a characteristic odor which some may find not entirely pleasing. Other examples of solvents can be found in Kirk-Othmer, Encyclopedia of Chemical Technology 3rd, Vol. 21. pp.377-401 (1983), incorporated by reference herein.

(34) The alkylene glycol ether solvents can include ethylene glycol monobutyl ether, ethylene glycol monopropyl ether, propylene glycol monopropyl ether, propylene glycol monobutyl ether, and mixtures thereof. One preferred glycol ether is ethylene glycol, monobutyl ether, also known as 2-butoxyethanol, sold as Butyl Cellosolve by Union Carbide. A particularly preferred alkylene glycol ether is propylene glycol, t-butyl ether, which is commercially sold as Arcosolve PTB, by Arco Chemical Co. It has the structure: ##STR7## It has been unexpectedly found that the propylene glycol t-butyl ether is especially preferred in the formulations of the invention. Propylene glycol n-butyl ether is also a suitable solvent for use herein. This particular solvent readily improves the non-streaking/non-filming performance. If mixtures of solvents are used, the amounts and ratios of such solvents used are important to determine the optimum cleaning and streak/film performances of the inventive cleaner. It is preferred to limit the total amount of solvent to no more than 50%, more preferably no more than 25%, and most preferably, no more than 15%, of the cleaner. However, in some of the compositions of this invention, no solvent may be present. A preferred range is about 1-15%, and if a mixed solvent system of alkanol/glycol ether is used, the ratio of alkanol to alkylene glycol ether should be about 1:20 to 20:1, more preferably about 1:10 to 1:10 and most preferably about 1:5 to 5:1.

8. Concerning the Masters reference, again a general teaching is provided as follows (see col. 7, emphasis added):

The balance of the formula is typically water and non-aqueous polar solvents with only minimal cleaning action, e.g., those having a hydrogen bonding parameter above 7.8, like methanol, ethanol, isopropanol, ethylene glycol, propylene glycol, and mixtures thereof. The level of non-aqueous polar solvent is greater when more concentrated formulas are prepared. Typically, the level of non-aqueous polar solvent is from about 0% to about 40%, preferably from about 1% to about 10% and the level of water is from about 50% to about 99%, preferably from about 75% to about 95%.

9. Concerning the Church reference, once again a general teaching is provided as follows (see claim 1; emphasis added):

1. A water based cleaning composition consisting essentially of water on the order of about 59.3 to about 99.58 weight percent, a cleaning agent selected from the group consisting of ammonium hydroxide, a monohydroxy alcohol containing not more than 3 carbon atoms and mixtures thereof on the order of

Art Unit: 1751

about 0.31 to about 40.3 weight percent plus an amount of a lubricity compound comprised of a water soluble alkyl derivative of ethylene glycol having the formula ROCH₂(CH₂OCH₂)_nCH₂OR wherein n is at least 2 and R is an on the order of about 0.025 to about 0.3 weight percent to impart substantial lubricity to the composition.

10. Therefore, based on these references teaching as a whole, and not just specific examples, the prior art provides a very clear teaching of each and every limitation taught by the applicant's instant claims.

11. Concerning claim 37, the applicant argues that the prior art references do not determine the rate of penetration as they are solely based on a visual inspection. The examiner is quite familiar with the use of visual inspections to indicate the performance of a cleaning product. The examiner worked extensively in the cleaning arts prior to his employment at the USPTO. It is quite common in the cleaning arts to use visual inspections. Visual inspections provide a wealth of information regarding a products performance including the rate of penetration. One can apply a cleaning composition to a soil and clearly see the mechanism of penetration. In fact one skilled in the art of cleaning would measure such a rate by simple observation. Such rates can be visually determined as being a fast penetrating composition, a moderate penetrating composition, and a slow penetrating composition. Although such measurements are not quantitative they none the less measure the "rate of penetration." Thus a visual inspection would indeed provide a qualitative measure of a compositions ability and rate of penetration. Such operations are extremely common in the cleaning arts and should not be considered a novel feature as argued by applicant.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1751

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Previous 102 rejections, with the exception of the Smith reference, are maintained based on the arguments presented above.

14. Claims 1-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Michael (US 5,108,660).

15. ~~Michael teaches the use of surfactants in amounts ranging from 0.1-5% (see col. 2, lines 62-68). Michael teaches the use of solvents including alcohols in amounts ranging from 0.5-20% of the composition (see col. 4, lines 59-68 and col. 5, lines 50-58). Michael teaches the use of various buffering agents including ammonia compounds such as alkanolamines in amounts ranging from 0.05-15% of the composition (see col. 6, lines 30-43). Michael further teaches the use and testing of these composition using various visual methods to determine the efficacy of the composition (see cols. 12-13).~~

16. Claim 38 is rejected under 35 U.S.C. 102(b) as being anticipated by Cable (US 6432897). As stated in the previous action as well as arguments stated above, Cable teaches compositions containing the require amounts of surfactant, ammonia compounds and alcohols as required by claim 38.

17. Claim 38 is rejected under 35 U.S.C. 102(b) as being anticipated by Choy (US 5851981). As stated in the previous action as well as arguments stated above, Choy teaches compositions containing the require amounts of surfactant, ammonia compounds and alcohols as required by claim 38.

Art Unit: 1751

18. Claim 38 is rejected under 35 U.S.C. 102(b) as being anticipated by Masters (US 5362422). As stated in the previous action as well as arguments stated above, Masters teaches compositions containing the require amounts of surfactant, ammonia compounds and alcohols as required by claim 38.

19. Claim 21 is rejected under 35 U.S.C. 102(b) as being anticipated by Masters (US 5362422). As stated in the previous action as well as arguments stated above, Masters teaches compositions containing the require amounts of surfactant, ammonia compounds and alcohols as required by claim 1. Masters further teaches the inclusion of enzymes such as protease (see col. 9, lines 15-16).

20. Claim 38 is rejected under 35 U.S.C. 102(b) as being anticipated by Church (US 4315828). As stated in the previous action as well as arguments stated above, Church teaches compositions containing the require amounts of surfactant, ammonia compounds and alcohols as required by claim 38.

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 1751

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory E. Webb whose telephone number is 703-305-4945. The examiner can normally be reached on 9:00-17:30 (m-f).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 703-308-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

Gregory E. Webb
Primary Examiner
Art Unit 1751

gw